

1 WE CLAIM:

2       1. A method of making computer games comprising:  
3           selecting from an inventory of map database products, a map database that  
4       contains data that represents features located in a geographic area to be depicted as part  
5       of a playing scenario of a computer game;  
6           selecting from a game shells inventory a game shell data structure that includes  
7       basic logic, rules, strategy, and characters for the computer game; and  
8           combining the map database and the game shell data structure in a computer game  
9       product.

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11       2. The method of Claim 1 further comprising:  
12           selecting from an inventory of road models, road models data that contains data  
13       representations used for visual appearance and rendering of road-related things.

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15       3. The method of Claim 2 wherein the road-related things include at least one  
16       selected from a group consisting of: road colors, road pavement, lane stripes, curbs,  
17       sidewalks, signs, lampposts, lane dividers, traffic signals, speed bumps, and crosswalks.

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19       4. The method of Claim 1 further comprising:  
20           selecting from an inventory of 3D models, 3D models data that contains data  
21       representations used for visual appearance and rendering of cityscape and landscape-  
22       related things.

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24       5. The method of Claim 4 wherein the cityscape and landscape-related things  
25       include at least one selected from a group consisting of: buildings, fences, trees,  
26       shrubbery, lawns, fences, clouds, and scenery.

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28       6. The method of Claim 1 further comprising:  
29           selecting game engines from an inventory, wherein the game engines are  
30       programs that perform specific tasks and operate on an as-needed basis during game play.

1           7.       The method of Claim 6 wherein the game engines include at least one  
2 selected from a group consisting of: audio engines, logic engines, rules engines,  
3 animation engines, graphics engines, and user interface engines.

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5           8.       The method of Claim 1 further comprising:  
6                 combining the map database and the game shell data structure with a geographic  
7 API in the computer game product.

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9           9.       The method of Claim 8 wherein the geographic API includes a set of  
10 queries by which game engine components in the computer game can request geographic  
11 data from the map database.

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13          10.      The method of Claim 8 wherein the geographic API provides for spatial  
14 queries for geographic data from the map database by components of the computer game.

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16          11.      The method of Claim 1 further comprising:  
17                 combining the map database and the game shell data structure with geographic  
18 data tools programs in the computer game product.

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20          12.      The method of Claim 11 wherein the geographic data tools programs  
21 include an integration function that combines road model data with data from the map  
22 database.

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24          13.      The method of Claim 11 wherein the geographic data tools programs  
25 include a 3D conversion function that provides for conversion of data from the map  
26 database for presentation in a perspective view.

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28          14.      The method of Claim 1 further comprising:  
29                 referring to parameters associated with a platform on which the computer game  
30 will be installed, wherein the parameters are obtained from a repository that contains a  
31 plurality of sets of parameters associated with different computer platforms.

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2        15. The method of Claim 14 wherein the repository includes sets of  
3 parameters associated with computer platforms selected from a group consisting of:  
4 personal computers, game consoles, cell phones, hand held devices, and networks.

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6        16. The method of Claim 1 wherein the game shells inventory repository  
7 includes basic logic, rules, strategy, and characters for a type of computer game selected  
8 from a group consisting of: a road rally game, a police chase game, a location quiz game,  
9 a “bot” fighter game, a flight simulator game, a “first-person-shooter” game, an auto theft  
10 game, and an urban development simulator game.

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12        17. The method of Claim 1 wherein the map database products includes map  
13 databases that represent different locales.

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15        18. The method of Claim 17 wherein the different locales are selected from a  
16 group consisting of: cities, states, and countries.

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18        19. The method of Claim 1 wherein the inventory of map database products  
19 includes map databases that represent a locale for different purposes, wherein the  
20 purposes are selected from a group consisting of: auto, pedestrian, bicycle, and aircraft.

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22        20. The method of Claim 1 wherein the inventory of map database products  
23 includes map databases that represent a locale with different levels of accuracy.

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25        21. A computer game factory system comprising:  
26            a map products inventory that contains a plurality of map data products, wherein  
27 the map data products represent separate geographic locales to be represented during  
28 playing scenarios of the computer games;  
29            a game shells inventory that contains data structures that includes basic logic,  
30 rules, strategy, characters, and vehicles, for computer games; and

1           a program that combines one of the map data products and one of the data  
2 structures from the games shells inventory to produce a computer game.

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4           22.     The system of Claim 21 further comprising:  
5                a road models inventory that contains data representations used for visual  
6 appearance and rendering of road-related things, wherein the program combines one of  
7 the data representations used for visual appearance and rendering of road-related things  
8 with the one of the map data products and the one of the data structures from the games  
9 shells inventory to produce the computer game.

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11          23.     The system of Claim 21 further comprising:  
12                a 3D models inventory that contains data representations used for visual  
13 appearance and rendering of cityscape and landscape-related things, wherein the program  
14 combines one of the data representations used for visual appearance and rendering of  
15 cityscape and landscape-related things with the one of the map data products and the one  
16 of the data structures from the games shells inventory to produce the computer game.

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18          24.     The system of Claim 21 further comprising:  
19                a game engines inventory that contains software engine programs that perform  
20 specific, regularly performed tasks and that operate on an as-needed basis during game  
21 play; wherein the program combines software engine programs with the one of the map  
22 data products and the one of the data structures from the games shells inventory to  
23 produce the computer game.

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